

## 26814 - Optometry II

### Syllabus Information

**Academic year:** 2024/25

**Subject:** 26814 - Optometry II

**Faculty / School:** 100 - Facultad de Ciencias

**Degree:** 297 - Degree in Optics and Optometry

**ECTS:** 6.0

**Year:** 2

**Semester:** Second semester

**Subject type:** Compulsory

**Module:**

### 1. General information

The aim is to acquire theoretical knowledge that allows the understanding of the different binocular defects, of the techniques that allow measuring the parameters necessary to characterize each defect and of the different applicable therapies. On the other hand, the aim is to acquire skills in the application of theoretical knowledge to the resolution of practical cases.

It is recommended to have taken the subject Visual Optics I, Visual Optics II and Optometry I.

### 2. Learning results

In order to pass the subject, the student must demonstrate the following results:

- To know how to perform calculations with ophthalmic prisms and with prismatic effects produced by off-centre lenses, for their application in the optical treatment of binocular defects.
- To know the identifying symptoms, signs and adaptations of the different binocular vision anomalies.
- To know how to diagnose the different binocular anomalies and know the fundamentals and protocols of the measurement techniques necessary to evaluate each defect.
- To know and know how to apply in practical cases the methods that allow to elaborate prescriptions of optical treatments to correct or palliate binocular defects.
- To know the surgical techniques for the correction of ocular alignment anomalies.

### 3. Syllabus

Topic 1: Ophthalmic prisms. Prismatic effects of off-centre lenses.

Topic 2: Introduction to the control systems of the visual system. Accommodation and convergence systems.

Basic study of the different binocular anomalies.

Topic 3: Binocular convergence: analysis and measurement.

Topic 4: Heterophoria (associated and dissociated phoria): measurement, analysis and treatment.

Measurement of fusion and stereopsis.

Topic 5: Strabismus: typology, diagnosis, measurement and optometric treatment

Topic 6: Optometric performance in suppression, eccentric fixation and amblyopia

Topic 7: Anisometropia and aniseikonia. Measurement, analysis and correction.

### 4. Academic activities

Two types of training activities are offered:

**Training activity I:** Presentation and acquisition of basic knowledge about the syllabus of the subject. The methodology is based primarily on lectures for the entire group of students. It is complemented by individualized or small group tutorial

attention.

**Training activity II:** Analysis of practical cases. The methodology is based in this case on classes with the widest possible interaction between teacher and students, promoted from the proposal and common discussion of practical cases of application of the concepts discussed in the previous activity.

## 5. Assessment system

The student must demonstrate that they has achieved the expected learning results by means of the following learning results through the following activities:

### Continuous evaluation

A midterm exam, within the period of development of the teaching activities of the subject . The test will consist of a written exam, which may contain theoretical multiple choice or development questions and practical cases referred to the extension of the topics established in its call. 30% of the grade.

-Resolution of questions or tasks posed through the Moodle page of the subject corresponding to the contents taught by the Optics area. 10% of the grade.

-Performance and presentation of a paper on the contents taught by the area of Ophthalmology. 10% of the grade.

-Global evaluation test to be carried out on the day set in the official calendar. The test will consist of a written exam with multiple choice or development type questions (both theoretical and practical). 50% of the grade.

### Non-continuous evaluation

Those students who do not pass the subject by continuous evaluation, will take a final exam fixed in the calendar that will constitute 90% of the grade of the subject. The remaining 10% will be contributed by the grade of the ophthalmology paper.

## 6. Sustainable Development Goals

3 - Good Health & Well-Being

4 - Quality Education